App No.: Not Yet Assigned Docket No.: UMY-038

Inventor: Zuoshang Xu and Phillip D. Zamore Title: ALLELE-SPECIFIC RNA INTERFERENCE

Sheet 1 of 9

FIGURE 1

A

```
mutant sirna p9

5'-UGGAGACUUGCGCAAUGUGTTT-3'

3'-dTdTACCUCUGAACGCGUUACACC-5'

p10

5'-GGAGACUUGCGCGAUGUGACGTTT-3'

3'-dTdTCCUCUGAACGCGUUACACU-5'

p11

5'-GAGACUUGGACGGUUACACUG-5'

sod1 wild type 5'-...GAGAGGCAUGUUGAGACAUGUGACAAAGAUGGU...3'

sod1 mutant 5'-...GAGAGGCAUGUUGAGACUUGCGCAAUGUGACUGCUGACAAAGAUGGU...3'

wild-type sirna p11

5'-GAGACUUGGGCAAUGUGACCTTT-3'

3'-dTdTCUCUGAACCCGUUACACUG-5'

p10

5'-GAGACUUGGGCAAUGUGACTTT-3'

3'-dTdTCUCUGAACCCGUUACACUG-5'

p9

5'-UGGAGACUUGGGCAAUGUGACTTT-3'

3'-dTdTCUCUGAACCCGUUACACUG-5'

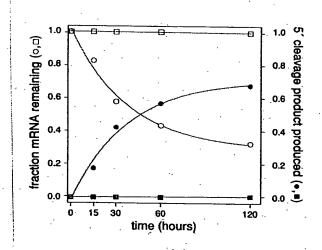
p9

5'-UGGAGACUUGGGCAAUGUGATTT-3'

3'-dTdTCUCUGAACCCGUUACACUG-5'

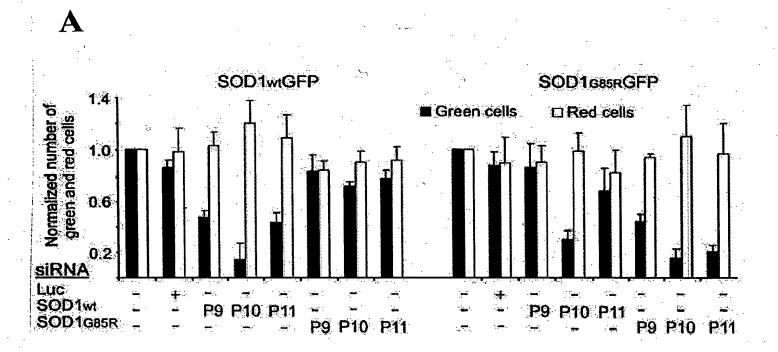
3'-dTdTACCUCUGAACCCGUUACACUG-5'
```

B



Sheet 2 of 9

FIGURE 2



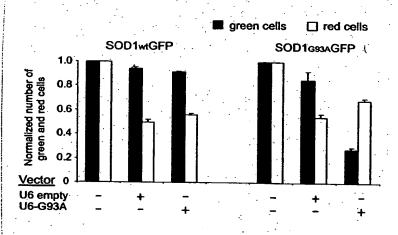
Sheet 3 of 9

FIGURE 3

Wild type SOD1

5'-...ACTGCTGACAAAGATGGTGTGGCCGATGTGTCTAT.

GACAAAGAUGCUGUGGCCGAU^{A A}G UUUU**CUGUUUCUAC<u>G</u>ACACCGGCUA_{U U}**C

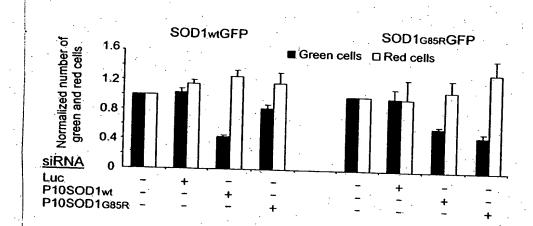


Docket No.: UMY-038

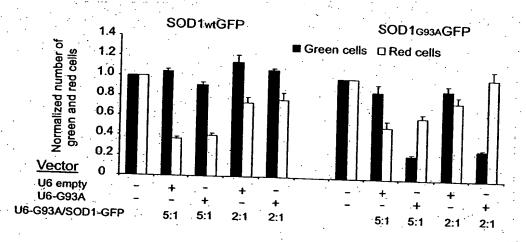
App No.: Not Yet Assigned Docket No.: Inventor: Zuoshang Xu and Phillip D. Zamore Title: ALLELE-SPECIFIC RNA INTERFERENCE

Sheet 4 of 9

FIGURE 4



B



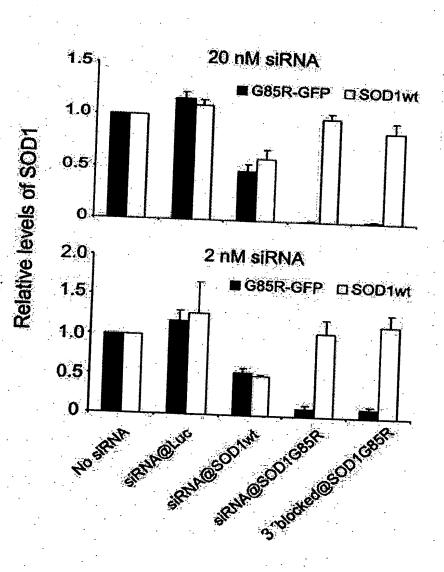
Docket No.: UMY-038

App No.: Not Yet Assigned Docket No.: Inventor: Zuoshang Xu and Phillip D. Zamore Title: ALLELE-SPECIFIC RNA INTERFERENCE

Sheet 5 of 9

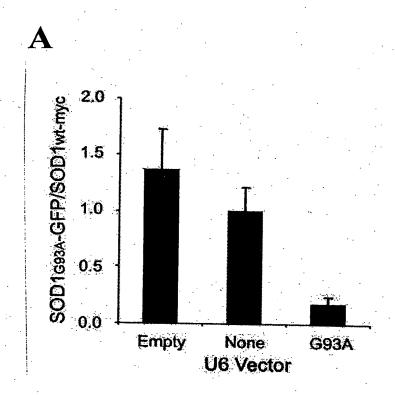
FIGURE 5





Sheet 6 of 9

FIGURE 6



Sheet 7 of 9

edsvislsgd hciigrtlvv eglhgfhvhe fgdntagcts dkdgvadvsi atkavcvlk gdgpvqgiin feqkesngpv kvwgsikglt giaq khggpkdeer hvgdlgnvta agsrlacgvi gneestktgn agphfnplsr hekaddlgkg

တ	cgacgaagg	ccgtgtgcgt	gctgaagggc	gacggcccag	tgcagggcat	catcaatttc	gagcagaagg
ğ	aagtaatgg	accagtgaag	gtgtggggaa	gcattaaagg	actgactgaa	ggcctgcatg	gattccatgt
ŭ	catgagttt	ggagataata	cagcaggctg	taccagtgca	ggtcctcact	ttaatcctct	atccagaaaa
ຮ	acggtgggc	caaaggatga	agagaggcat	gttggagact	tgggcaatgt	gactgctgac	aaagatggtg
بر	ggccgatgt	gtctattgaa	gattctgtga	tctcactctc	aggagaccat	tgcatcattg	S
g	gtggtccat	gaaaaagcag	atgacttggg	caaaggtgga	aatgaagaaa	gtacaaagac	aggaaacgct
g	gaagtcgtt	tggcttgtgg	tgtaattggg	atcgcccaa			

Sheet 9 of 9

gtaccctgtttacatcattttgccattttcgcgtactgcaaccggcgggccacgccgtgaaaaggaagg		[-193]
${ t ttcccggctgcggggggggggggggtctccggcgcacgcggcccttggcccgccc$		[-93]
gggctgagcgcgtgcgaggccattggtttggggccagagtgggcgaggcgcggaggtctggcctataaagtagtcgcggagagacggggtgctggtttgcgt		[8]
cgtagtctcctgcaggtctgggggttccgttgcagtcctcggaaccaggacctcggcgtggcctagcgagttatg <u>gcgacgaaggccgtgtgcgtgctga</u>		[108]
agggcgacggcccagtgcagggcatcattaatttcgagcagaaggcaagggctgggaccgggaggcttgtgtgtg		[208]
ccccgcgaccctttgcatggacgggtcgcccgccaggggctagagcagttaagcagcttgctggaggttcactggctagaaagtggtcagcctgggattgc		[308]
atggacggatttttccactcccaagtctggctgctttttacttcactgtgaggggtaaaggtaaatcagctgttttctttgttcagaaactctctccaaac		[408]
tttgcacttttcttaaaggaaagtaatggaccagtgaaggtgtgggggaagcattaaaggactgact	ggggaagcattaaaggactgaagtgcctgcatggattccatgttcatgagtttg	[208]
gagataatacagcaggtgggtcataatttagctttttttt	gottttttttttttttttattaaataggotgtaccagtgcaggtcctcactttaatcctctatccagaaa	[678]
acacggtgggccaaaggatgaagagaggtaacaagatgcttaactcttgtaatcaatggcgatacgtttctggagttcatatggtatactacttgtaaat		[178]
atgtgcctaagataattccgtgtttcccccacctttgcttttgaacttgctgactcatgtgaaaccctgctcccaaatgctggaatgctttacttcctg	aacttgctgactcatgtgaaaccctgctcccaaatgctggaatgcttttacttcctg	[878]
ggottaaaggaattgacaaatgggcaottaaaacgatttggttttgtagcatttgattgaatatagaactaatacaagtgocaaaggggaaotaatacag		[978]
gaaatgttcatgaacagtactgtcaaccactagcaaaatcaatc	_	[1078]
caaagatggtggccgatgtgtctattgaagattctgtgatctcactctcaggagaccattgcatcattggccgcacactggtggtaagttttcataaa		[1178]
ggatatgcataaaaacttcttctaacagtacagtcatgtatctttcactttgattgttagtcgcgaattctaagatccagataaactgtgtttctgctttt		[1278]
aaactactaaaatattagtatatctctctactaggattaatgttatttttctaatattatgaggttcttaaaacatcttttgggtattgttgggaaggaggt		[1378]
gtgattacttgacagcccaaagttatcttcttaaaattttttacaggtccatgaaaagcagatgacttggg	ttaaaaattttttacaggtccatgaaaaagcagatgacttgggcaaaggtggaaatgaagaaagtacaaag	[1478]
acaggaaacgetggaagtegtttggettgtggtgtaattgggategeeeaataaacatteeettggatgtagtetgaggeeeettaaeteatetgttate		[1578]
ctgctagctgtagaaatgtatcctgataaacattaaacactgtaatcttaaaagtgtaattgtgtgtg		[1678]
agaaactgatttatgatcacttggaagatttgtatagttttataaaactcagttaaaaatgtctgtttcaatgaçctgtattttgccagacttaaatcaca		[1778]
gatgggtattaaacttgtcagaatttctttgtcattcaagcctgtgaataaaaaccctgtatggcacttattatgaggctattaaaaagaatccaaattca		[1878]
aactaaattagctctgatacttattatataaacagcttcagtggaacagatttagtaatactaacagtgatagcattttattttgaaagtgttttgaga		[1978]
ccatcaaaatgcatactttaaaacagcaggtcttttagctaaaactaacacaactctgcttagacaaataggctgtcctttgaagctt		[3066]